This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

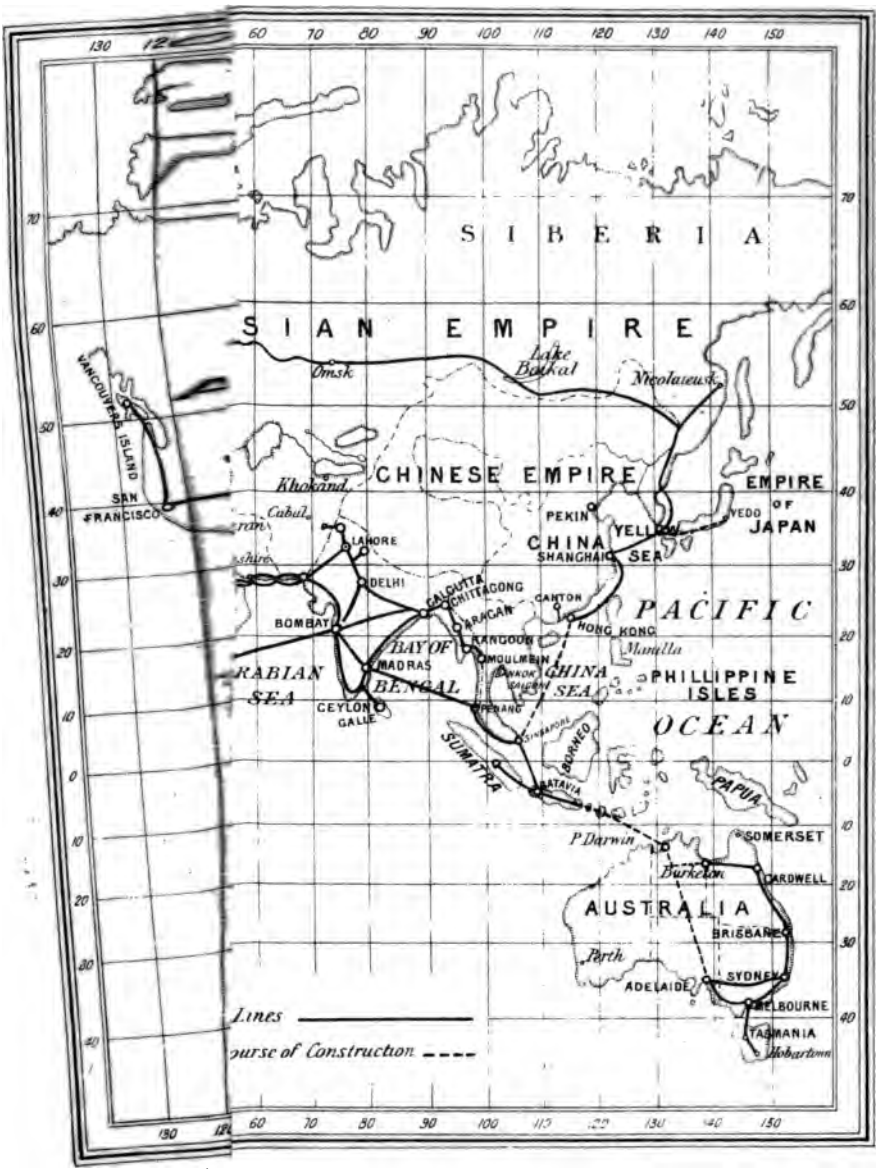
Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

Blundell's Manual
of
Submarine
Telegraph Companies.

52. e.
179.

600039276X

202. 2. 11/1.


SIBERIA
SIAN EMPIRE
Omsk
Lake Baikal
Nicolaiewsk
VANCOUVER'S ISLAND
SAN FRANCISCO
Khokand
Cabul
CHINESE EMPIRE
EMPIRE OF JAPAN
PEKIN
YELLOW SEA
YEDO
CHINA
SHANGHAI
LAHORE
DELHI
CALCUTTA
CHITTAGONG
ARAGAN
CANTON
HONG KONG
PACIFIC
OCEAN
BOMBAY
BAY OF BENGAL
RANGOON
MOULMEIN
Manilla
MADRAS
RABIAN SEA
CHINA SEA
PHILLIPPINE ISLES
CEYLON
GALLE
PENANG
SINGAPORE
SUMATRA
BORNEO
BATAVIA
PAPUA
P. Darwin
SOMERSET
Burketon
CARDWELL
AUSTRALIA
BRISBANE
Perth
ADELAIDE
SYDNEY
MELBOURNE
TASMANIA
Hobartown
Lines
ourse of Construction

THE MANUAL

OF

SUBMARINE TELEGRAPH COMPANIES.

BY

J. WAGSTAFF BLUNDELL,

PUBLIC ACCOUNTANT,

AUDITOR OF THE MARSEILLES, ALGIERS, AND MALTA TELEGRAPH COMPANY.

ENTERED AT STATIONERS' HALL.

LONDON:

RIXON AND ARNOLD, 29, POULTRY.

1871.

[*Price Two Shillings.*]

232. e. 179.

LONDON:
PRINTED BY WILLIAM CLOWES AND SONS,
STAMFORD STREET AND CHARING CROSS.

INDEX.

	Page	Appendix Page
Anglo-American Telegraph Company	8	49
Anglo-Mediterranean Telegraph Company	20	50
British Australian Telegraph Company	28	51
British Indian Extension Telegraph Company	25	52
British Indian Submarine Telegraph Company	23	53
China Submarine Telegraph Company	26	54
Cuba Submarine Telegraph Company	35	55
Falmouth, Gibraltar, and Malta Telegraph Company	16	55
French Atlantic Telegraph Company	13	62
Great Northern Telegraph Company	30	56
Great Northern Telegraph Company, China and Japan Extension	32	57
Indo-European Telegraph Company	34	58
Marseilles, Algiers, and Malta Telegraph Company	19	60
Mediterranean Extension Telegraph Company	39	59
Panama and South Pacific Telegraph Company	38	60
Reuter's Telegram Company	41	61
Sir William Thomson's Siphon Recording Instrument	44	..
Société du Cable Transatlantique Français	13	62
Submarine Telegraph Company	41	63
West India and Panama Telegraph Company	36	64

THE

MANUAL OF SUBMARINE TELEGRAPH COMPANIES.

Two years ago I addressed the British public on a topic in which they are deeply interested, namely, the investment of their money. My first words on that occasion were, "The subject I wish to treat upon is telegraphy; that is, the use of the science of telegraphy considered financially." I cannot do better than say, that my subject is still the same; but that I should wish more particularly to confine myself to *submarine* telegraphy.

To make a subject complete you must begin at the beginning, and even at the risk of being accused of telling a tale that has been so often told before, I shall commence by giving an account of the early efforts to establish electrical communication between England and America. These efforts, it is true, were essentially failures, but they undoubtedly led to the success which has attended later attempts, and may be said to have formed the ground-work of our present advantages in the shape of submarine telegraphy. Up to the end of 1858 two attempts were made. The first was a total failure; the second was less unfortunate, as the cable was actually laid between Newfoundland and Ireland, and messages were freely exchanged; but after a few weeks the signals became indistinct, and then ceased altogether. These misfortunes had such a bad effect that no further effort was made until 1865, when the "Great Eastern" was chartered to carry the cable. The work progressed well

until she arrived in mid-Atlantic, when the cable parted, and was lost at a depth of two miles and a half. Great exertions were made to fish up the broken cable, but in vain. In 1866 the "Great Eastern" started again with a fresh cable, which was successfully laid. Six weeks later the cable of 1865 was brought up from the immense depth at which it had been lost, and taken to its original destination, thus establishing a double communication between England and America.

Notwithstanding all these marvels in cable laying, no money was forthcoming from the public for any further submarine telegraph enterprises. It was not until 1868 that the Anglo-Mediterranean Telegraph Company was formed; but immediately afterwards the French Atlantic Telegraph Company was established. On the 4th October, 1868, the laying of the Anglo-Mediterranean cable was completed, and so little sensation did it create, that the newspapers scarcely remarked upon the fact of its being laid. This further advance led to the formation of the British Indian Submarine Telegraph Company, to lay a line from Bombay, *viâ* Aden to Suez, and the successful laying of the French Atlantic cable in July, 1869, seemed to create a mania for submarine telegraph companies. New companies came out one after the other, and the list of shares quoted in the "Times" will show that many of them were successfully floated. I will endeavour to give an account of these companies (eighteen in all), but I think it will be better to class them according to their relation to one another, rather than in alphabetical order. I shall take first the Atlantic cables; secondly, the submarine route to India and the East; thirdly, the overland route to India and the East; fourthly, the companies in and about the West Indies; and lastly, three miscellaneous companies. I shall, however, make a few general remarks before referring to them seriatim.

In the first place, it must be clearly understood that my remarks are intended to assist *investors* and not speculators, for the rise and fall in shares has rarely anything to do with the real value of the property; and a reference to the latest quotations would scarcely ever be found to agree with the value which I put upon them. I shall, however, give what appears to

me good reasons for placing a value upon any particular company's shares, and leave the investor to form his own judgment thereon. I must state that I consider a sum equal to 1½ per cent. upon the capital of the company should be laid by every year for a reserve fund, and that an investor may consider himself safe in buying the shares of any company at par, which has more than one cable, and can pay 7 per cent. after laying by a sum equal to 1½ per cent., or 8 per cent. in the case of a company which has only one cable. This is, of course, only *my* opinion, but I shall apply the test uniformly.

In an appendix I have given a list of the directors of each company, and other information, which is more particularly useful for members of the Stock Exchanges.

THE ATLANTIC CABLES.

THERE are three Atlantic cables, two of which are owned by the Anglo-American Telegraph Company, and one by the French Atlantic Telegraph Company. All these cables were manufactured and laid by the Telegraph Construction and Maintenance Company.

THE ANGLO-AMERICAN TELEGRAPH COMPANY (LIMITED).

CAPITAL.

	£
Bonds bearing interest at the rate of 7½ per cent.	100,000
Ordinary Stock	1,575,000
	£1,675,000

The property of the company, in which there are no less than 4,200 shareholders, consists of two cables, between Valentia, on the south-west coast of Ireland, and Heart's Content Bay, in Newfoundland: the length of each of these cables is about 1,890 miles.

Originally the cables were worked by the Anglo-American Company, as agents to the Atlantic Telegraph Company; but, on the 1st of February, 1870, the Anglo-American Company

bought up the interest of the Atlantic Telegraph Company in the undertaking for 375,000*l.* of Anglo-American stock at par. To give an account of how the stock was distributed would be useless, more than to say that the Anglo-American shareholders received 1,200,000*l.* stock (being 20*l.* of stock for each share of 10*l.*), and the Atlantic shareholders 375,000*l.* The Stock Exchange still continue to deal in the stock as shares, so that it is necessary to explain that five Anglo-American shares are equivalent to 100*l.* stock. The messages are taken from London to Valentia, through the Wexford cable, two wires being specially reserved for the American messages: at Heart's Content they are handed to the New York, Newfoundland, and London Telegraph Company, who transmit them as far as Plaister Cove, whence they are sent by the Western Union Telegraph Company direct to New York. From the opening of the Atlantic cable for traffic, on the 28th July, 1866, until the 15th August, 1869, the Anglo-American Company had no rival; but immediately upon the opening of the French Atlantic Company's cable for traffic on the latter date, a sharp competition commenced. The first effect of this was a reduction in the tariff of both companies, to 1*l.* 10*s.* 0*d.* for ten words. There was much talk about further reductions, but eventually an agreement was made between the two companies for a division of receipts, as follows:—

The gross receipts accruing to the two companies, from messages passing over their lines (the French Company being considered as commencing at Brest and ending at Boston, and the Anglo Company as beginning at Valentia and ending at Plaister Cove), to be divided, by giving the French Company $36\frac{2}{3}$ per cent., and the Anglo Company $63\frac{1}{3}$ per cent., irrespective of which company may have done the work. Special arrangements are also made in case of the breaking of all or any of the three cables, which are as follows:—

1st. If the Anglo Company should be able to send messages through only one of its cables, for a period exceeding eighteen consecutive months, the division would be 60 per cent. to the Anglo Company, and 40 per cent. to the French Company; and if the one cable continue broken for more than thirty consecutive

months, the division will be, until it is repaired, 50 per cent. to each company.

2nd. If the French Company should be unable to transmit messages through its one cable for more than six months, they would only receive 27 per cent. of the receipts; after eighteen months they would only receive 20 per cent.; and after twenty-four months the Anglo Company would take the whole of the receipts.

3rd. If the Anglo Company should not be able to send messages through *either* of its cables for more than six months, they would only receive 27 per cent. of the receipts; after eighteen months only 20 per cent.; and after two years the French Company would take the whole of the receipts.

4th. If either company is wholly unable to transmit messages for more than twenty-four consecutive months, the company which *can* transmit messages may give six months' notice to determine the agreement; and if the company in default is at the end of this notice still unable to transmit messages, this agreement will be entirely cancelled.

The Anglo Company in conjunction with the French Company have a steamer suitable for repairing cables, called the "Robert Lowe;" the former company paid $\frac{34}{64}$ths of the cost of purchasing the ship, and the French Company the remainder. Of the cost of keeping up this steamer, the Anglo Company have to pay $\frac{34}{64}$ths, and the French Company the remainder; but while repairs are actually going on, the company whose cable is under repair has to bear the whole cost.

The Anglo Company has an agreement with the Post Office that all messages sent for transmission to America at equal rates shall be handed to this company, unless specially marked to go by some other line. There is also a similar agreement with a company in Germany, called the German Union Telegraph Company.

The Anglo Company is in partnership with the New York, Newfoundland, and London Telegraph Company, and has to give that company one-third of the receipts after division with the French Company, but receives back as a rebate the sum of 25,000*l.* per annum.

It may be desirable to know that the cable partially laid in 1865 (5½ years ago), and completed in 1866, has only been broken or interrupted once, that is, in December, 1870 (not yet repaired). On the other hand, the cable laid in 1866 has been injured seven times, viz.:—twice in 1867, once in 1868, three times in 1869 (that is, a break in two places at the Heart's Content end, and a flaw at the Valentia end), and once in 1870 (the latter not yet repaired), but not one of these accidents has been caused by any defect in the cable. Five times they occurred in shallow water close to Heart's Content, and were, from the appearance of the cable, caused either by icebergs or an anchor. The fault discovered in the cable near Valentia was caused by a puncture during its laying or manufacture. Since the breaking down of the 1865 cable, the whole of the traffic has been forwarded through the French cable. The electrical condition of both cables, though at present fractured, is as perfect as the day they were laid.

I think it will be better, in stating the earnings of the cables, to show, as a means of comparison, what the dividends were equal to on the present capital of the company. The accounts of the company for eleven months ending 30th June, 1867 (the revenue for July, 1867, was not published by the Anglo Company, they having no interest in it), showed a profit of 176,176*l.* 4*s.* 1*d.*, to which must be added the sum of 22,916*l.* 13*s.* 4*d.* ($\frac{11}{12}$ths of the rebate of 25,000*l.* from the Newfoundland Company); then deduct $\frac{11}{12}$ths of 7,500*l.* (6,875*l.*), for debenture interest, and $\frac{11}{12}$ths of 25,125*l.* (23,031*l.* 5*s.* 0*d.*), for a reserve fund of 1½ per cent. on the total capital of the company, and you have an available balance of 169,186*l.* 12*s.* 5*d.*

On the same principle the balance available for dividend for the nine months ending 30th April, 1868, was 161,686*l.* 15*s.* 3*d.*

For the twelve months ending 30th April, 1869, it was 180,797*l.* 13*s.* 11*d.*

For the nine months ending 31st January, 1870, it was 91,641*l.* 12*s.* 11*d.*

This would show that the following dividends could have been paid on the present amount of ordinary stock:—

	Rate per cent. per annum.
11 months ending 30th June, 1867 . .	$11\frac{3}{4}$
9 „ „ 30th April, 1868 . .	$13\frac{11}{16}$
12 „ „ 30th April, 1869 . .	$11\frac{1}{2}$
9 „ „ 31st Jan. 1870 .. .	$7\frac{3}{4}$

Thus, during the worst period (when the competition with the French Company was going on), after laying by a reserve of $1\frac{1}{2}$ per cent., there was enough to pay $7\frac{3}{4}$ per cent.

As to the traffic since the 1st of February, 1870, no official statement has lately been made, but I believe it is equal to 1,250*l.* per day (including Sundays), or 456,250*l.* for the year.

	£	s.	d.	£	s.	d.
$63\frac{1}{3}$ per cent. of this is				288,958	6	8
Newfoundland proportion	96,319	8	11			
Less Rebate . .	25,000	0	0			
				71,319	8	11
				217,638	17	9
Working Expenses .	25,000	0	0			
Debenture Interest .	7,500	0	0			
Reserve Fund. .	25,125	0	0			
				57,625	0	0
Leaving for Dividend . . .				£160,013	17	9

This is equal to a dividend of rather more than $10\frac{1}{8}$ per cent., and shows that to get 7 per cent. for your money, you might buy Anglo-American stock at 145.

Three quarterly dividends, at the rate of 8 per cent. per annum, have been paid since the 1st February, 1870, out of the profits made during the nine months ending 31st October, 1870.

It may be well to state that the working expenses during the year ending 31st January, 1871, will be somewhere about 10,000*l.* more than the amount which I have stated under this heading, owing to extraordinary items of expenditure, such as the purchase of the "Robert Lowe" (partially paid for out of a *reserve* laid by in 1869), &c.

SOCIÉTÉ DU CABLE TRANSATLANTIQUE FRANÇAIS (LIMITED).

French Atlantic Telegraph Company.

Capital.

	£
58,000 ordinary shares of 20*l.* each . .	1,160,000
2,000 omnium shares of 20*l.* each . .	40,000
	£1,200,000

The company was formed in 1868, and its property consists of two cables, as follows :—

	Miles.
Brest to St. Pierre, Newfoundland . .	2,584
St. Pierre to Duxbury, near Boston .	749
Total	3,333

In addition to which this company constructed, and laid for their exclusive use, a cable between Salcombe, on the Devonshire coast, and a point on the coast of Brittany north of Brest. The capital was required for the following purposes :—To pay the contractors 920,000*l.* (820,000*l.* in cash, and 100,000*l.* in shares), for manufacturing and laying the cables between Brest and St. Pierre, and St. Pierre and Duxbury; 180,000*l.* for the Channel cable, purchase of land lines, &c.; and 100,000*l.* (in 5,000 shares, of which 3,000 were ordinary, the remainder omnium) paid for the transfer of a concession from the French Government, for the laying and working of submarine telegraphs between France and the United States for twenty years, from the 1st September, 1869. The holders of the 2,000 omnium shares, after 5 per cent. of the net profits has been put to a reserve fund, and ten per cent. paid on the whole share

capital (1,200,000*l.*), are entitled to one-fifth of any profits beyond.

The cable was completed to Duxbury in July, 1869, but the United States Government insisted upon the company renouncing their concession from the French Government, because they (the United States Government) were no party to it. It is now useless to discuss the rights or wrongs of this question. Suffice it to say, that it was agreed to release the French Government from their concession; and they (the French Government) promised to hand over to this company, at equal rates, all messages not specially marked to go by any other route, as well as giving the company the right of amalgamating with any other company.

At the time of the laying of the cable a minute defect was stated to exist between Brest and St. Pierre, and during the great magnetic disturbances which prevailed in the Atlantic in October last, the regular working of the cable was to a certain extent interfered with. An examination is now being carried on to ascertain whether there is any fault, and should this turn out to be the case, the original contractors and the concessionaires are bound to defray the cost of repairs up to 40,000*l.* (shares having been reserved to that amount), and it is scarcely probable that they would exceed that figure.

The traffic from the 15th August to 31st December, 1869, was sufficient, after placing to reserve fund 1,129*l* 6*s.* 3*d.*, to pay a dividend at the rate of $4\frac{2}{3}$ per cent. per annum.

On the 28th May, the line between St. Pierre and Duxbury broke down, and was not repaired until 9th September, but owing to the agreement with the Anglo-American Telegraph Company, the messages were sent forward from St. Pierre over the Newfoundland Company's system, without extra cost to this company.

The company, besides the reserve fund of 1,129*l.* 6*s.* 3*d.*, has a balance of capital unexpended of about 23,000*l.*, and surplus cable valued at 22,000*l.*, and the directors state that both these amounts will be kept in reserve.

An interim dividend was declared up to the 30th June, 1870, at the rate of 7 per cent. per annum, and another up to the

30th September, at the rate of 8 per cent. per annum, which must be considered very satisfactory, as it is the highest rate of interim dividend which may be declared by the directors. It was stated at the meeting in August, that the French company's share of the traffic, from the 15th of February, was more than 3,000*l.* a week. Taking the traffic over the three Atlantic cables (after deducting land charges) at 1,250*l.* a day (including Sundays), this company's share for the year would be 167,291*l.* 13*s.* 4*d.*: from this must be deducted 30,000*l.* for working expenses, leaving 137,291*l.* 13*s.* 4*d.* This sum would be treated as follows:—

	£	s.	d.	£	s.	d.
Net profits				137,291	13	4
Reserve fund:—	£	s.	d.			
5 per cent. of net profits	6,864	11	8			
Dividend of 10 per cent on £1,200,000 .	120,000	0	0			
				126,864	11	8
				£10,427	1	8
2,000 omnium shares, one-fifth of 10,427*l.* 1*s.* 8*d.*				2,085	8	4
Available for further dividend . .				8,341	13	4
				£10,427	1	8

The balance available for dividend (exclusive of the sum of 2,085*l.* 8*s.* 4*d.* to the holders of omnium shares) is 128,341*l.* 13*s.* 4*d*; but it requires a further sum of 11,135*l.* 8*s.* 4*d.* to make the reserve fund equal to 1½ per cent. on the capital, which would leave 117,206*l.* 5*s.* 0*d.*, equal to a trifle more than 9¾ per cent.: so that, to give you 7 per cent. for your money, you might buy an ordinary 20*l.* share at 27*l.* 17*s.* 2*d.* The dividend on the omnium shares, with the addition of the sum of 2,085*l.* 8*s.* 4*d.*, would be 14*l.* 19*s.* 3*d.* per cent.; so that, to give you 7 per cent. for your money, you might buy an omnium share at 42*l.* 15*s.* 0*d.* per 20*l.* share. I have treated this company as having more than one cable, owing to its arrangements with the Anglo-American Company.

The arrangements as to division of traffic, and the keeping up of the maintenance steamer, will be found in the account given of the Anglo-American Company.

THE SUBMARINE ROUTE TO INDIA AND THE EAST.

There are seven companies included in the system of submarine telegraphy between England, India, and the East, and the cables belonging to them were all manufactured and laid by the Telegraph Construction and Maintenance Company. It should be understood that all these companies were brought out in connection with one another; and not only is the traffic managed by a joint committee composed of members of each of the different boards, but there is great saving of expense by the division of the cost of rent and expenses of joint stations, and in many other ways. I shall commence from England. The first company is the—

FALMOUTH, GIBRALTAR, AND MALTA TELEGRAPH COMPANY (LIMITED).

Capital.

66,000 shares of £10 each = £660,000.

The company, in which there are 1,350 shareholders, was formed in July, 1869, and its property consists of three cables, 2,281 miles in length, as follows:—

	Miles.
Porthcurno (near Penzance) to Lisbon . .	830
Lisbon to Gibraltar	331
Gibraltar to Malta	1,120
	2,281

The company also owns a land line about ten miles in length, from Porthcurno to Penzance, and has the exclusive use of a wire from Penzance to London. Originally it was intended to make the starting place at Falmouth, but it was found that Porthcurno was more suitable for landing a cable.

The Portuguese Government has granted the company the exclusive right for twenty years of establishing submarine telegraph lines between Portugal and England, and between Portugal, Gibraltar, and Malta. 640,000*l.* was paid to the contractors for the making and laying of the cables, and 20,000*l.* was considered sufficient for general purposes; but it is desirable to state that, owing to the sale of surplus cable, after paying for half of the maintenance steamer, "Hawk," 550 tons register (4,250*l.*), erecting the land line to Penzance, and all other expenses up to the opening of the line, there is a balance of 22,488*l.* 4*s.* 3*d.* in hand on account of capital. The line was opened for traffic on the 13th June, and the accounts published up to the 30th September showed a profit made during that period of 15,496*l.* 10*s.* 1*d.*, of which 13,200*l.* was paid away in dividend (being at the rate of 6⅝ per cent. per annum), and 2,296*l.* 10*s.* 1*d.* was carried to a reserve fund. There is a very general belief that this company is only paying well because, owing to the war, the Spanish and Portuguese messages cannot go through France. There is no doubt it was an advantage to receive these messages when the line was first opened, because it kept the cable well employed; but it must be remembered that they frequently block up the line between Lisbon and London, and stop those which pass over the whole line, and for which a larger sum is received. In fact, without a second cable between Lisbon and England, when the Australian and other lines are opened, the company would hardly be able to carry the Portuguese traffic; but from the statement made at the meeting in December, there is little doubt this duplicate cable will be laid before very long.

At Porthcurno the company use a siphon recording instrument, which saves considerably in point of time, owing to the much smaller number of repetitions required in the receiving of messages. On page 44, through the courtesy of Sir William Thomson (the inventor and patentee), and of Mr. Bull, the

superintendent at Porthcurno station, I am enabled to give a special account of the working of this instrument. In future, the traffic returns are to be published monthly, commencing from 1st January; and it was stated at the meeting on the 14th December, that from 1st October to the 13th December the traffic had been sufficient, after paying all expenses, to pay a dividend of 12 per cent.; but of course this was without putting anything to a reserve fund. The revenue would work out for a year as follows:—

Gross Receipts	£99,200
Working Expenses	20,000
12 per cent. on 660,000*l.* is . . .	79,200
Reserve Fund	9,900
10½ per cent. on 660,000*l.* is . . .	£69,300

Thus, after laying by the required amount for reserve, you have sufficient left to pay 10½ per cent.; so that to get 8 per cent. for your money you might buy a 10*l.* share at 13*l.* 2*s.* 6*d.*; and it should be understood that this is quite exclusive of any increase from the extensions to the East, or of the increased proportion that will belong to this company in case of the proposed raising of the rates to India.*

* The cable between Lisbon and Gibraltar broke down on the 29th November, and owing to rough weather has not yet been repaired: this, however, does not interfere with the local traffic.

MARSEILLES, ALGIERS, AND MALTA TELEGRAPH COMPANY (LIMITED).

CAPITAL.

20,000 shares of 10*l.* each = £200,000.

This company, in which there are 400 shareholders, was formed in February, 1870, and its property consists of two submarine cables, as follows:—

	Miles.
Marseilles to Bona (Algeria) . . .	502
Bona to Malta	360
	862

The capital was raised to pay 195,000*l.* for the manufacture and laying of the two cables (167,000*l.* in cash during manufacture, and 8,000*l.* in cash, and 20,000*l.* in shares, on the completion of the whole line), and 5,000*l.* for general purposes. The object of laying this line was to avoid the necessity of sending French messages to Egypt, India, and the East, over the Italian land lines; as it was found that, before the opening of the British Indian line, nearly one half of the messages between Malta and Egypt were in the French language, and it was considered that on the opening of the line to India this traffic would be greatly increased. The first section (between Marseilles and Bona) was completed on the 28th July, 1870, and was of great service to the French Government in telegraphing to their Algerian possessions, giving a striking instance of the immense value of submarine cables in time of war. It has since obtained upwards of 200 messages per day. The Bona and Malta section was laid on the 11th October, and opened for traffic on the 15th of the same month. The line is worked at Malta by the Anglo-Mediterranean Company, and at Marseilles and Bona the cables are connected with the French Government lines, but

are worked by this company's staff. The war in France has had a bad effect upon the general traffic, but it is believed that when peace is re-established it will be a successful line. To pay a dividend of 8 per cent. would require the gross traffic to be 24,000*l.*, divisible as follows :—

Gross traffic	£24,000
Working expenses	5,000
	19,000
Reserve fund	3,000
8 per cent. on 200,000*l.* is . .	£16,000

This is equal to about 66*l.* a day (including Sundays), but the variety in the rates precludes the possibility of arriving at the number of messages required to obtain this amount.

ANGLO-MEDITERRANEAN TELEGRAPH COMPANY (LIMITED).

Capital.

Ordinary Stock, £430,000.

The property of this company, in which there are 700 shareholders, consists of two submarine cables between Malta and Alexandria, of about 900 miles each, or a total of 1,800 miles.

Their land lines extend from Susa, in Italy, to Modica, in Sicily, the total length being about 1,300 miles.

The company also leases a cable belonging to the English Government, which extends from Malta to Alexandria, by way of the African coast, and is about 1,500 miles in length. The lease is for a period of fifteen years, of which two years have expired. The company pays 2,000*l.* a year fixed rental for this cable, and an extra 3,000*l.* in case of their paying a dividend over 10 per cent.; but I believe there is a possibility of this

agreement being modified, in consequence of the unsatisfactory condition of the government line. The two cables between Sicily and Malta belong to the Mediterranean Extension Telegraph Company, the offices at Modica and Malta being occupied jointly by these two companies.

When the company was first established the capital was 260,000*l.*, in 26,000 shares of 10*l.* each, and was apportioned as follows:—245,000*l.*, for making and laying a new cable between Malta and Alexandria, and for the purchase of the land lines between Susa and Modica; 10,000*l.*, in fully paid shares, to the Telegraph Construction and Maintenance Company, to extinguish a liability of 2,000*l.* per annum to the English Government for 14 years; and 5,000*l.* for general purposes. Of this latter sum 4,250*l.* has been expended on the purchase of a half share in the steamer "Hawk," 550 tons register, as a maintenance ship, the Falmouth Company having purchased the other half.

The company took possession of the government cable on the 16th September, 1868, and the new cable commenced working on the 4th of the following month.

The profits up to the 30th April, 1869, were sufficient to pay a dividend at the rate of 10 per cent. per annum, and carry 4,359*l.* 10*s.* 7*d.* to a reserve fund. During the year ending 30th April, 1870, the profits were sufficient to pay a dividend of 12½ per cent.; to write off 1,106*l.* 4*s.* 7*d.* for preliminary expenses; to place 10,141*l.* 14*s.* 3*d.* to reserve fund, being 15 per cent. on the gross receipts; and to carry forward 1,901*l.* 4*s.* 9*d.*

In order to provide for the increased traffic consequent upon the opening of the British Indian, and Falmouth lines, and the extensions further east, it was found necessary to lay another cable between Malta and Alexandria, and a contract was entered into for the making and laying of this cable for a sum of 180,000*l.*, and a further sum of 1,000*l.* for engineering expenses. To meet this expenditure, 26,000 shares of 6*l.* 10*s.* 0*d.* each (allotted to the old shareholders *pro ratâ*), and 100 shares of 10*l.* each were issued at par, and the remaining 11,000*l.* was taken from the reserve fund. These shares rose in a very short time from ½ to 2 premium, which was of course a great advantage to the old shareholders.

The dividends paid on the capital of 260,000*l.*, from the 1st May to 31st October, 1870, have been at the rate of 8 per cent. per annum: a dividend has also been paid on the new shares at the same rate, according to the date at which the calls were paid. I may state that the cable laid in 1868 has never been out of order. The new cable was laid and handed over to the company on the 22nd November last. The shares converted into stock were as under:—

26,000 old shares of 10*l.* 0*s.* 0*d.* each .	£260,000
26,000 new do. of 6*l.* 10*s.* 0*d.* each .	169,000
100 do. do. of 10*l.* 0*s.* 0*d.* each .	1,000
Stock	£430,000

As to the dividend likely to be earned, the traffic receipts for the year ending 30th April, 1870, were 67,611*l.* 8*s.* 4*d.*; but the Suez Canal was opened during this period, and this event created a very large traffic for about a month, so that the traffic would be more fairly stated as 60,000*l.*, but to this must be added, say 450*l.* per week, owing to the increased number of messages from the British Indian line, which had only been opened 6 weeks before the date of the accounts. The gross traffic for the year may be taken as 83,400*l.* The company have (under *present* arrangements with the Government) to lay by a reserve fund equal to 10 per cent. of the gross receipts, and for the next 3 years, 1,106*l.* 4*s.* 7*d.* will have to be written off for preliminary expenses. The revenue account will work out as follows:—

	£	s.	d.	£	s.	d.
Gross Receipts				83,400	0	0
Working expenses				25,000	0	0
				58,400	0	0
Preliminary Expenses	1,106	4	7			
Reserve Fund	8,340	0	0			
				9,446	4	7
Available for dividend				£48,953	15	5

This would be equal to a dividend of rather more than $11\frac{3}{8}$ per cent.; and allowing that 7 per cent. is worth par, each 100*l.* stock may be valued at 162*l.* 10*s.**

BRITISH INDIAN SUBMARINE TELEGRAPH COMPANY (LIMITED).

CAPITAL.

120,000 shares of 10*l.* each . . £1,200,000.

The company, in which there are 2,100 shareholders, was formed in January, 1869, and its property consists of two submarine cables, as follows:—

	Miles.
Suez to Aden	1460
Aden to Bombay	1818
Total	3278

The land line, between the terminus of the Anglo-Mediterranean line at Alexandria, and Suez, is also the property of this company.

The capital was raised for the purpose of paying the contractors 1,000,000*l.* (540,000*l.* in cash, and 460,000*l.* in shares) for the making and laying of the two cables, and the transfer to this company of the maintenance steamer "Chiltern," 886 tons register; 37,500*l.* (in shares) for the land line between Alexandria and Suez; 10,000 for general purposes; and 1,250 shares were reserved for contingencies. The public, who subscribed 550,000*l.* (540,000*l.* for the contractors, and 10,000*l.* for general purposes), were entitled, upon the completion of the line, to 137,500*l.* bonus shares, which increased the capital to 1,200,000*l.* It is desirable to state that, owing to the sale of surplus cable, there is a balance of 18,473*l* 16*s.* 7*d.* capital unexpended, after completing the whole line, and paying all expenses to the opening. The line was opened for traffic on 26th March last, and the receipts up to the 30th September

* I learn that an arrangement has been made with the English Government for the absolute purchase of their cable *viâ* Tripoli and Benghazi.

were sufficient to pay 29,687*l.* 10*s.* 0*d.*, in dividend (being at the rate of rather more than $4\frac{13}{16}$ per cent. per annum upon the capital, exclusive of the 1,250 shares reserved), and carry 3,494*l.* 13*s.* 7*d.* to a reserve fund. During the week previous to the 30th September, the cable between Aden and Suez was broken down, and owing to the rough weather was not repaired until 13th of October. This break down occurred through the cable having been laid in seven fathoms of water over a patch of rock where the Admiralty chart showed the depth to be thirty fathoms, and the bottom sand and mud. It has been determined to have a duplicate land line between Alexandria and Suez, so that the original line may be available entirely for the through traffic. The dividend during the first six months can scarcely be looked upon as any criterion of what may be expected in the future, for many reasons. When the line was first opened, the Indo-European Company took messages to various parts of India at a cheaper rate than this company, and by this means got a large share of the traffic, which, however, they lost as soon as the rate by the submarine line was lowered. Again, it must be remembered, that the Falmouth line was not opened until the middle of June, so that for nearly three months out of the six the messages had to go through France and Italy, which of course caused frequent interruptions and inaccuracies. Beyond this the war has quite stopped the continental traffic with India. It is intended, with the co-operation of the Indo-European Company, to apply to the Telegraph Conference, for the purpose of raising the rate to India; but even leaving this out of the question, the traffic may be fairly taken as 2,700*l.* a week, which of course, when the lines are open to the East, the rates raised, and the war at an end, must be considerably increased. The revenue account should work out as follows:—

Gross Receipts . .	£140,400
Working Expenses . .	33,000
	£107,400
Reserve Fund . .	18,000
	£89,400

89,400*l.* is equal to rather more than $7\frac{7}{16}$ per cent. upon the total capital of the company, so that to get 8 per cent. for your money you might buy a 10*l.* share at 9*l.* 5*s.* 11*d.*

The land lines from Bombay to Madras, Calcutta, and other stations in India, are the property of, and are maintained by the Indian Government.

BRITISH INDIAN EXTENSION TELEGRAPH COMPANY (LIMITED).

Capital.

46,000 shares of 10*l.* each = £460,000.

The property of the company, in which there are 550 shareholders, consists of two cables, 1,834 miles in length, as follows:—

	Miles.
Madras to Penang . . .	1,447
Penang to Singapore . . .	387
	1,834

The company was formed in October, 1869, and it was originally intended to make Galle (Ceylon) the starting point, but on the representations of the Indian Government as to extra facilities for traffic, Madras was selected instead. The original disposal of the capital was as follows:—

To the contractors for making and laying the two cables between Galle and Singapore, 440,000*l.* (310,000*l.* in cash, and 130,000*l.* in shares; of the latter, 50,000*l.* to be reserved until the line had been in working order for thirty consecutive days), leaving for general purposes 20,000*l.* The contractors required a further sum of 15,000*l.*, on account of the change of the starting point, which involved an additional length of seventy-eight miles of cable; but they have agreed to leave this sum to be paid off in instalments (with six per cent. interest) spread over five years.

The section of the cable between Singapore and Penang was completed on the 10th December last, and news of the completion of the whole line is hourly expected.* As to the loan of 15,000*l.*, I should think there will be enough surplus cable and capital unspent to pay this off at once; but to be sure of not over-estimating the value of the property, I will assume that revenue for the first five years will have to bear a yearly charge of 3,000*l.* To give you 8 per cent. on your money, or, in other words, to show the shares of the company to be worth par, the gross traffic must be 64,700*l.* for the year.

Gross Traffic		£64,700
Working expenses, including interest on loan .		18,000
		£46,700
Reserve Fund . . .	£6,900	
One-fifth of 15,000*l.* . . .	3,000	
		9,900
8 per cent. on 460,000*l.* is		£36,800

In the prospectus of the company it was stated the through rate with other companies would be 1*l.* 7*s.* for twenty words, and for local messages, 1*l.* 10*s.*; but taking the rate for all messages at only 1*l.* 5*s.* for twenty words, it would require 113 messages of twenty-five words per day (including Sundays) to produce a revenue of 64,700*l.*, or about 177*l.* per day.

CHINA SUBMARINE TELEGRAPH COMPANY (LIMITED).

Capital.

52,500 shares of 10*l.* each = £525,000.

The company, in which there are 500 shareholders, was formed in December, 1869, and the property to be obtained for the capital was a submarine cable from Singapore to Hong-

* The whole line is now complete, and was to be opened for traffic on 5th January.

Kong, 1,632 miles in length. The capital when paid up will be distributed as follows:—

To the contractors for the making and laying of the cable, 508,000*l.* (in cash, 408,000*l.*, and in shares, 100,000*l.*; of the latter, 50,000*l.* are to be handed over when the line is laid, and the remaining 50,000*l.* when it has continued in working order for thirty consecutive days), leaving 17,000*l.* for general purposes. The contractors are bound to pay interest at the rate of five per cent. per annum on the paid-up capital of the company (payable half-yearly), until 30th June, 1871, the date fixed by the contract for the opening of the line. It was originally intended to continue this company's line to Shanghai, and power was given to raise extra capital, but an arrangement has since been entered into with the Great Northern China and Japan Extension Company, by which the latter company agrees, that after deducting 15,000*l.* for working expenses in each year, they will give the China Company one half of the amount received for messages between Hong-Kong and Shanghai. There is no doubt that this is a favourable agreement for this company and is certainly far better than laying an opposition cable.

Up to the 31st December, 1869, there has been called up 7*l.* per share, and the remaining calls are due as follows:— 1st January, 1*l.*, 1st February, 1*l.*, and 1st March, 1*l.*

The gross traffic required to pay a dividend of 8 per cent. is 66,875*l.*, which would be divisible as under:—

Gross Traffic . . .	£66,875
Working Expenses . .	17,000
	£49,875
Reserve Fund	7,875
8 per cent. on 525,000*l.* is	£42,000

Assuming that the sum of 4,000*l.* is received from the Great Northern China and Japan Extension Company, for messages between Hong-Kong and Shanghai, you will have to get

62,875*l.* from messages between Singapore and Hong-Kong. No rates have yet been published, but taking the average at 1*l.* 5*s.* for twenty words, it would require 110 messages of twenty-five words (or about 172*l.*), per day (including Sundays) to produce 62,875*l.*

BRITISH AUSTRALIAN TELEGRAPH COMPANY (LIMITED).

Capital.

66,000 shares of 10*l.* each = £660,000.

The company, in which there are 800 shareholders, was formed in January, 1870, and its property will, when complete, consist of two submarine cables, 1,726 miles in length, as follows:—

	Miles.
Singapore to Batavia (Java) . . .	563
Bezoeki (Java) to Port Darwin (in northern territory of South Australia) . . .	1,163
	1,726

Originally it was intended that the Port Darwin cable should touch at the island of Timor, and that the company should make a land line, 800 miles in length, from Port Darwin to Burketown, in the territory of Queensland, where it would have been connected with the existing land lines. The South Australian Government have, however, undertaken to make and maintain a land line, direct from Port Darwin to Port Augusta, near Adelaide, in connection with existing land lines. This will save the company the expense of making its land line to Burketown as well as the maintaining the same, the latter being a very important point. The messages will be taken from Batavia to Bezoeki, in Java, by means of a land line which is the property of the Dutch Government, so that the company has been able to avoid erecting any land lines.

The original disposition of the capital was as follows:—To the contractors, for the making and laying of the submarine cables, and 800 miles of land line, and the transfer to this company of

the steamer "Investigator," 569 tons register, as a maintenance ship, 634,000*l.* (514,000*l.* in cash, and 120,000*l.* in shares, the shares to be handed over as follows: 20,000*l.* on the shipment of the cable, 50,000*l.* when the line is completed, and 50,000*l.* when it has been in working order for thirty consecutive days), leaving 26,000*l.* for general purposes. What terms will be made with the contractors, owing to the abandonment of the land line, I cannot say, but I believe, in round figures, there will be a saving of about 50,000*l.* The contractors guarantee interest at the rate of 5 per cent. per annum on the paid up capital of the company (payable half-yearly) until the 31st December, 1871, the date fixed for the opening of the whole line, or any earlier day on which the contractors shall have completed the works. 8*l.* per share has been called up. It has not yet been announced when the remaining 2*l.* will be called up, or, in case of a modification of the contract, whether the whole amount will be required.

The company has the power, within about eighteen months from this time, of purchasing the cable laid between Melbourne and Tasmania, for a sum of 70,000*l.*, upon which the Tasmanian Government guarantee the sum of 4,200*l.* per annum. The cable between Singapore and Batavia was laid on the 14th November, 1870, and was opened for traffic on the 20th of the same month.

The amount of traffic required to pay 8 per cent. upon the present capital of the company is 80,700*l.*, as follows:—

Gross traffic	£80,700
Working expenses	18,000
	62,700
Reserve fund	9,900
8 per. cent on 660,000*l.* is . . .	£52,800

To produce a revenue of 80,700*l.* would require traffic equal to about 221*l.* per day (including Sundays). Thus, taking the average price of messages, at 1*l.* 15*s.* for twenty words, it would require about one hundred and one messages of twenty-five words each per day, to produce the required amount.

THE OVERLAND ROUTE TO INDIA AND THE EAST.

It is necessary to state, that though the Great Northern and Great Northern China and Japan Extension Companies (whose cables were manufactured by Mr. W. Hooper) are included under this heading, they are not possessed of any land lines, but the connection between the two companies is by means of the Russian Government lines through Siberia.

GREAT NORTHERN TELEGRAPH COMPANY OF COPENHAGEN.

(Incorporated under Danish Law, with Limited Liability.)

CAPITAL.

40,000 shares of 10*l.* each = £400,000.

This company was formed 1st June, 1869, and is possessed of six submarine cables, 1,070 miles in length, as follows:—

	Miles
Newbiggin (Northumberland) to Söndervig (Denmark)	334
Hirtshals (Denmark) to Arendal (Norway)	66
Möen Do. to Bornholm (an island in the Baltic Sea)	304
Bornholm to Libau (Russia)	
Peterhead (Aberdeenshire) to Egersund (Norway)	270
Grislehamn (Sweden) to Nystad (Russia)	96
	1,070

The messages to Russia, over the Danish English line, are forwarded from Söndervig to Möen, over the Danish Govern-

ment lines, thence by this company's cable to Libau, and from there by the Russian Government line to St. Petersburg, Moscow, and all other Russian stations. The messages to Russia over the Norwegian Scotch line, are forwarded from Egersund to Christiana by the Norwegian Government line, from Christiana to Grislehamn by the Swedish Government line, thence by this company's cable to Nystad, and from there to St. Petersburg, &c., by the Russian Government line. Thus there are two distinct routes between England and Russia; but beyond this, if either the Möen, Libau, or Swedish Russian cables be out of order, the messages can be sent by either route, by means of the connection of Denmark and Norway, through the Hirtshals and Arendal cable. Most of the cables of this company, as well as those of the China and Japan Extension Company, are worked by Wheatstone's Automatic Instrument.

The company did not lay their own cables, but purchased the whole of them, with sundry concessions, from three other companies, for a sum of 400,000*l.* These concessions allow this company the exclusive right of transmitting messages between the points where their cables are laid for thirty years, and the Russian concession gives a subvention of one franc on certain messages transmitted from Russia. After these concessions expire, this company has a preference in their renewal, and in any case retains its cables and the right of using them.

The receipts from messages during the seven months ending 31st December, 1869, were 15,620*l.* 12*s.* 2*d.*, and the working expenses, 1,100*l.* 13*s.* 8*d.*, leaving 14,519*l.* 18*s.* 6*d.* for division. Of this sum of 14,519*l.* 18*s.* 6*d.*, there was carried to a reserve fund 1,451*l.* 19*s.* 10*d.*; paid to the shareholders, 13,000*l.* (being equal to a dividend of about 5 $\frac{9}{16}$ per cent. per annum); and 67*l.* 18*s.* 8*d.* carried forward. The working expenses are very small, owing to most of the work being done by government officials. It is necessary to state that the Bornholm Libau cable was only laid on the 5th June, the Norwegian Scotch cable on the 21st August, and the Swedish Russian cable on the 1st November. The traffic returns are published every month, and between the 1st January and 30th June, 1870, each month's traffic has shown an increase when compared with the preceding

month. Since the 1st July the traffic has shown an immense increase; in fact, in August, it was more than three times as great as it was in January, but this was chiefly owing to the war between France and Prussia. The traffic for the three months ending 30th June was 10,795*l.* (269,880 francs), therefore, the traffic for a year may fairly be taken as 43,180*l.*, especially as the return for the month of June was 3,876*l.* (96,900 francs), or 46,512*l.* per annum. Taking the traffic as 43,180*l.*, the division would be as follows:—

	£.
Gross receipts	43,180
Working expenses	5,000
	38,180
Reserve fund, 10 per cent. of 38,180*l.* .	3,818
	£34,362

This leaves for dividend 34,362*l.*, but to make the reserve fund equal to 1½ per cent. on the capital, would require a further deduction of 2,182*l.*, which leaves 32,180*l.*, equal to a dividend of 8 per cent.; so that, to receive 7 per cent. for your money, you might buy a 10*l.* share at 11*l.* 8*s.* 7*d.* I have treated this company as having two cables, because each of its stations may be arrived at by a duplicate line.

GREAT NORTHERN TELEGRAPH CHINA AND JAPAN EXTENSION COMPANY.

(Incorporated under Danish Law, with Limited Liability.)

Capital.

60,000 shares of 10*l.* each = £600,000.

The company was formed in January, 1870, and the property to be obtained was two submarine cables, 2,300 miles in length, as follows:—

	Miles.
Posiett Bay to Shanghai . . .	1,200
Shanghai to Hong-Kong . . .	1,100
	2,300

I have mentioned, in my account of the China Submarine Company, the terms made with that company to avoid their laying an opposition cable between Hong-Kong and Shanghai. The Russian Government has granted to this company the exclusive right, for thirty years, of connecting China and Japan with Europe through the government wires on Russian territory. This concession also provides for a renewal of these exclusive privileges on preferential terms at the expiration of the thirty years, and in any case secures to this company the continuance of the right of the transmission of their messages through the Russian land lines. These land lines extend from Posiett Bay, by way of Kabarowka, Tehita, Irkutsk, Tomsk, Omsk, Perm, and Moscow, to Libau, the terminus of the Great Northern Company. Their total length is about 5,560 English miles. The maintenance of these land lines is guaranteed by the Russian Government. The company entered into a contract for the making of their cables for a sum of 396,000*l.*, but undertook the laying themselves; and the remainder of the capital was raised for the purpose of paying for the laying of the cables, for the purchase of the Russian Government concession for a sum of 25,000*l.*, and for general purposes. News of the completion of the whole line is expected at an early day.

The maximum tariff for messages from any of the stations in China or Japan to the western frontier of Russia has been fixed by the concession at 100 francs per single message of twenty words (of which 60 francs accrue to this company and 40 francs to the Russian Government).

I shall assume that the agreement with the China Submarine Company will give that company about 4,000*l.*; therefore, to pay eight per cent., the traffic must be equal to 81,000*l.* per annum, as follows:—

Gross Traffic		£81,000
Working Expenses . . .		20,000
		61,000
China Submarine Company	£4,000	
Reserve Fund . .	9,000	
		13,000
8 per cent. on £600,000 is . .		£48,000

This would require the traffic to be equal to nearly 222*l.* per day (including Sundays), and taking the average rate for messages at 1*l.* 15*s.* for twenty words, would necessitate the transmission of one hundred and one messages per day of twenty-five words each.

INDO-EUROPEAN TELEGRAPH COMPANY (LIMITED).

Capital.

18,000 shares of £25 each	=	£450,000
Less unissued 1,000 shares of £25 each	=	£25,000
		£425,000

This company was formed in April, 1868, and its object was to connect England with India by means of land wires starting from Emden, near Hanover (the terminus of the Lowestoft and Norderney cable), through North Germany (touching at Berlin) to the Russian frontier at Alexandrowa, thence, *viâ* Warsaw, Gitomir, Odessa, Kertch, and Tiflis, to the Persian frontier at Djulfa; thence, *viâ* Tabreez, to Teheran, the capital of Persia, where it joins the system of the Government of India Telegraphs through Southern Persia, and the Persian Gulf to Kurrachee. The property actually belonging to the company is all land

lines, with the exception of a short cable in the Black Sea. The line was opened on the 31st of January, 1870, but up to the present time no dividend has been declared.

COMPANIES IN AND ABOUT THE WEST INDIES.

All the cables belonging to the three companies under this heading were manufactured by the India-Rubber, Gutta Percha, and Telegraph Works Company.

CUBA SUBMARINE TELEGRAPH COMPANY (LIMITED).

Capital.

16,000 shares of 10*l.* = 160,000*l.*, with power to raise 50,000*l.* by bonds.

This company was formed in January, 1870, and its property consists of a cable in two sections, that is:—

	Miles.
From Santiago to Cienfuegos . .	120
Cienfuegos to Batabano . . .	400
	520

The company has also a land line (30 miles in length) from Batabano to Havana, where it connects, by means of the International Ocean Telegraph Company's cables, with Florida, and from there by land lines with all the chief towns in the United States. It holds an exclusive concession (for forty years) from the Spanish Government for connecting Havana, Batabana, Cienfuegos, and Santiago by telegraph. The capital was raised for the payment of 147,000*l.* to the contractors for the making and laying of the cable, and the balance has been sufficient for the construction of the land lines, and all expenses connected with the establishment of the company, without the

necessity of raising money upon the bonds. The company owns a part of the maintenance steamer "Suffolk," in conjunction with the International, Ocean, and West India and Panama Companies. The line was opened for traffic on 12th September, 1870.

To pay a dividend of 8 per cent. would require a gross annual traffic of 20,200*l.*, as follows:—

Gross traffic	£20,200
Working expenses . . .	5,000
	15,200
Reserve fund	2,400
8 per cent. on £160,000 is. .	£12,800

Thus it would require rather more than 55*l.* per day (including Sundays), which would be equal to eighty-eight messages averaging twenty-five words each.

WEST INDIA AND PANAMA TELEGRAPH COMPANY (LIMITED).

Capital.

65,000 shares of 10*l.* each = 650,000*l.*, with power to raise 50,000*l.* by bonds.

The company was formed in August, 1869, and its property, when complete, will consist of submarine cables 2,550 miles in length, as follows:—

	Miles.
Cuba to Jamaica	140
Jamaica to Aspinwall. . . .	605
Jamaica to Portorico	582
Portorico to St. Thomas . . .	110
St. Thomas to St. Kitt's . . .	133
St. Kitt's to Antigua	90
	1,660

	Miles.
Brought forward,	1,660
Antigua to Guadaloupe . . .	84
Guadaloupe to Dominica . . .	90
Dominica to St. Lucie . . .	80
St. Lucie to St. Vincent . . .	84
St. Vincent to Barbadoes . . .	202
St. Vincent to Grenada . . .	80
Grenada to Trinidad	120
Trinidad to (Georgetown) Demerara .	150
	2,550

The company will also be possessed of 170 miles of land lines; that is, 50 miles across Jamaica, 30 miles across Trinidad, and 90 miles from Georgetown to Berbice, the terminus of the line.

The connection between Aspinwall and Panama (the link between this company's line and the intended Panama and South Pacific line) is by means of a land line forty miles in length, which belongs to a railway company, but which this company has the right of leasing.

Subsidies have been obtained from various colonial governments, amounting to about 18,000*l.* per annum, all of which are for ten years.

The whole of the share capital has been issued, and this, with the sum of 27,500*l.* in bonds (bearing interest at the rate of 6 per cent.), it is believed will be sufficient to complete the whole line.

The company, in conjunction with the International, Ocean, and Cuba Companies, owns the steamer "Suffolk." This ship is specially fitted up for the repair of submarine cables.

The line was opened for traffic between Cuba and Jamaica on the 21st of September last, and the section between Portorico is now in course of laying.*

The weather has been so against cable laying, that no other portion of the line has as yet been completely laid, but great efforts are being made to complete the whole line at the earliest

* News has been received of the completion of the line between Portorico and St. Thomas.

possible day. Taking the subsidies as worth 18,000*l.* per annum, and the bonds issued as 27,500*l.*, it would require a traffic from messages equal to 75,812*l.* per annum to pay a dividend of 8 per cent., as follows:—

Receipts from messages . .	£75,812	
Subsidies	18,000	
		93,812
Working expenses . . .	30,000	
Debenture interest . . .	1,650	
		31,650
		62,162
Reserve Fund		10,162
8 per cent. on £650,000 is . . .		£52,000

Thus the amount per day from messages (including Sundays) must be equal to about 208*l.* It is quite impossible to show how many messages it will take to make up this sum of 208*l.*, owing to the variety of the rates.

PANAMA AND SOUTH PACIFIC TELEGRAPH COMPANY (LIMITED).

Capital.

32,000 shares of £10 each = £320,000.
With power to raise £50,000 by bonds.

The company was formed in January, 1870, and its property, when complete, will consist of a submarine cable 1,100 miles in length, from Panama to Tumbez, touching at Ecuador and New Granada.

At Tumbez the lines of the National Telegraph Company of Peru commence, and they extend through the whole of Peru.

The capital was raised to pay the contractors 300,000*l.* for the making and laying of the submarine cable, and the remainder (exclusive of the bonds) was considered amply sufficient for general purposes. The company was bound to reserve

shares to the extent of 60,000*l.* for subscription in Peru, and the delay in receiving this sum accounts for the fact of no more than 2*l.* 10*s.* per share having been called up; but as soon as these remittances are received further calls will be made, and the manufacture of the cable proceeded with. It is perhaps somewhat premature to talk about dividends, but I may state that the gross traffic required to pay 8 per cent. is 45,400*l.*, divided as follows:—

Gross Receipts . . .	£45,400
Working Expenses . .	15,000
	30,400
Reserve Fund . . .	4,800
8 per cent. on £320,000 is .	£25,600

Thus it would require rather more than 124*l.* a day (including Sundays). Nothing is I believe at present fixed as to the rates for messages.

MISCELLANEOUS COMPANIES.

MEDITERRANEAN EXTENSION TELEGRAPH COMPANY (LIMITED).

CAPITAL.

3,200 8 per cent. preference shares of £10 each	=	£32,000
12,000 ordinary shares of £10 each	=	120,000
		£152,000

This company was formed in 1857, and its property consists of three submarine cables, 189 miles in length, as follows:—

	Miles.
Alga Grande (Sicily) to Malta .	62
Pozallo (Sicily) to Malta . .	62
Otranto to Corfu	65
	189

The first cable between Sicily and Malta was laid in 1859, the cable between Otranto and Corfu in 1860, and the second cable between Sicily and Malta in 1869.

The company is also possessed of 37 miles of land lines, that is, from Alga Grande to Modica (5 miles), Pozallo to Modica (7 miles), where they connect with the Anglo-Mediterranean Company's land line, and from Corfu across the island to Sidari (25 miles). The cable at Otranto is in direct communication with Modica, by means of the Italian Government land line.

Originally the company's property consisted of cables from Cagliari (Sardinia) to Malta, and from Malta to Corfu, but as these did not work at all satisfactorily, they were abandoned. The English Government guarantee this company (until 1882), that they will make up their net profits to 7,200*l.* every year in which they may be less than that amount. The company, since its formation in 1857, has occasionally been obliged to fall back on the government guarantee, but during the year ending 30th June, 1870, the profits were 8,668*l.* 8*s.* 10*d.*

The Malta and Sicily duplicate cable was paid for out of revenue, and to do this the ordinary shareholders were obliged to go without dividend for three half-years (from 1st July, 1868, to 31st December, 1869).

The offices at Modica and Malta are occupied jointly with the Anglo-Mediterranean Company.

Since the publication of the last accounts, the Falmouth and Marseilles Algiers and Malta lines have been opened, and it is quite impossible to say what will be the effect produced on this company's traffic; so that, in considering the value of the investment, it will be better to take the profits at their minimum.

Government Guarantee . .	£7,200
Dividend on Preference Shares .	2,560
	4,640
Reserve Fund	2,280
Leaving for Dividend . .	£2,360

2,360*l.* is equal to a dividend of $1\frac{15}{16}$ per cent. Thus, to give you 7 per cent. for your money, you might buy a 10*l.* share at 2*l.* 15*s.* 4*d.*, but it should be clearly understood that this is the lowest point that can be arrived at.

It is desirable to state, that on the 30th June, 1870, after paying the whole cost of the duplicate cable to Malta, there was 2,000*l.* remaining to the credit of the reserve fund.

REUTER'S TELEGRAM COMPANY (LIMITED).

CAPITAL.

10,000 shares of £8 each . .	£80,000
Unissued, 1,000 shares . . .	8,000
	£72,000

This company originally owned the Norderney cable between Lowestoft and Norderney (Prussia), but that cable having been sold to the English Government, their business now consists entirely of the supply of intelligence by telegraph and otherwise to newspapers and private subscribers. No accounts have been published which show the earnings since the sale of the cable, but an interim dividend has been paid for the half-year ending 30th June, 1870, at the rate of 5 per cent. per annum.

SUBMARINE TELEGRAPH COMPANY BETWEEN GREAT BRITAIN AND THE CONTINENT OF EUROPE.

(Incorporated by Royal Charter.)

CAPITAL.

Ordinary stock	£338,225
With power to increase to . .	400,000

The company was formed in 1850, and its property consists of seven cables, as follows:—

	Wires.	Miles.
Cable laid, September, 1851, Dover to Calais .	4	24
„ November, 1867, Dover to La Panne (Belgium)	4	47
„ May, 1853, Ramsgate to Ostend .	6	70
„ June, 1859, Folkestone to Boulogne .	6	25
„ June, 1861, Beachy Head to Dieppe .	6	78
„ September, 1870, Beachy Head to Havre	6	69
„ January, 1860, Jersey to France .	1	30
	33	343

The company also works three cables on behalf of the Post Office, two of them being between England and Holland, and the third between England and Norderney (Prussia).

The company has an exclusive concession from the French Government (until 1889) for the laying and working of submarine cables between England and France; also a similar concession from the Belgian Government (until 1889), for the laying and working of cables between Belgium and England. The cables being laid across a narrow and shallow channel, are naturally very liable to continual breakages; but notwithstanding this fact, very fair dividends have been earned for some years. To give any account of the past dividends would be useless here, as since the Post Office took over the telegraphs, they have entered into arrangements with this company, which are so advantageous, that the dividend has been nearly doubled. I will briefly state the terms of this agreement. The gross receipts (between the Continent and Great Britain or Ireland) are divided by first giving the company one-fourth, which is supposed to represent a sum sufficient for repairs; then the Post Office take one-fifth on all messages to or from London, two-fifths in case of towns in Great Britain other than London; and one-half to or from Ireland; the remainder is divided equally between the Post Office and the company. The company has to keep all the cables in order, unless the leased cables become permanently disabled,

in which case the Post Office must renew them at its own expense. It is necessary to state that this company is in partnership with a French company, called the "Submarine Telegraph Company between France and England, Société Carmichael et Cie." The division of net receipts is made *pro ratâ* upon the assumed capital of the two companies, calling the French company's capital 75,000*l.* and this company's 370,807*l.* 15*s.* 2*d.* It is quite impossible to arrive at the future earnings of the two companies, as when the last accounts were published (to 30th June, 1870), the agreement with the Post Office had only been working five months; and of the three cables belonging to that office, the one to Hanover was not worked until the 26th March, and the other two not until the 9th April (being out of repair); and the new cable from Beachy Head to Havre was not laid. The gross receipts for the six months ending 30th June, 1870, were

	£	s.	d.
	45,028	15	4
Working Expenses . . .	9,146	10	2
	£35,882	5	2
Reserve Fund ten per cent. of gross receipts	4,502	17	6
	£31,379	7	8

The division with the French Company was on a different basis previous to 30th June, 1870, but on the present basis the division would be as follows:—

	£	s.	d.
English company (370,807*l.* 15*s.* 2*d.*)	26,100	6	1
French company (75,000*l.* 0*s.* 0*d.*) .	5,279	1	7
	£31,279	7	8

This company's proportion is therefore 26,100*l.* 6*s.* 1*d.*; but out of this they had to pay their directors' fees (958*l.* 6*s.* 8*d.*), and repairs to cables (2,400*l.*) thus leaving 22,741*l.* 19*s.* 5*d.*, which is equal to a dividend on the present capital at the rate

of $13\frac{7}{16}$ per cent. per annum, showing on the principle that seven per cent. is worth par, each 100*l.* stock may be valued at 192*l.* It must be observed that the reserve fund is not equal to $1\frac{1}{2}$ per cent. on the capital of the company; also that the repairs are expected to be heavier in future; but, at the same time, the receipts must be very much larger now that the agreement with the Post Office is in full action. The reserve fund on the 30th June, 1870, amounted to 44,612*l.* 1*s.* 6*d.*, of which 34,790*l.* 9*s.* 6*d.* belonged to the English company, and 9,821*l.* 12*s.* 0*d.* to the French company. It was intended to withdraw from this fund a sum not exceeding 15,500*l.*, for the purchase of a steamer for repairing purposes; but this sum has to be recouped to the reserve fund, as well as keeping up the ordinary reserve.

SIR WILLIAM THOMSON'S SIPHON RECORDING INSTRUMENT.

THE phenomena which have to be dealt with on submarine cables, such as induction, the laws which govern retardation, &c., are not met with or experienced on land or aerial telegraphs; and the instruments, such as the Morse, Relays, Translators, &c., are not found to be available for working long submarine circuits.

The instrument in general use for the latter is the mirror, from which the signals are read by the movements of a minute ray of light. A small mirror is suspended in a tube inserted in the middle of a coil of wire, and through this coil the cable current passes, the magnet at the back of the mirror being deflected right or left according to the nature of the current positive, or negative. On the mirror a light is thrown through a slightly convex lens from a lamp. The light is reflected back on to a scale from which the signals are read. The range of signals or sensitiveness of this system depends upon the strength of current, and the focal range.

Splendid signals are obtained on the Falmouth, Gibraltar, and

Malta cable, between Porthcurno and Lisbon, with three small cells of a battery, the distance between these two stations being eight hundred and thirty miles.

With a view, however, of doing for long cable circuits what the Morse instrument does for land lines, Sir Wm. Thomson has recently patented and brought out a siphon recording instrument, which writes the characters or letters on a band of paper, after the fashion of the Morse, but not the dot and dash system.

Its action may thus be described:—

The characters or letters are written in ink by a fine glass tube or siphon about two inches in length, and the thickness of an ordinary sewing needle, which is suspended on a fine platinum wire. One end of the siphon dips into a small tank of ink, and the other nearly touches the running band of paper. Through the siphon the ink is forced or taken up by a constant succession of sparks of electricity, making on the paper band, when the instrument is not recording signals, a line of very small dots . . . . . thus. In order to cause the siphon to form the characters of the letters by movements to the right or left, it is fastened to a coil of wire by a fine silk fibre. This coil is delicately suspended between the poles of an electro magnet, and through the suspended coil the currents from the cable pass. When the battery is applied to the electro magnet, the coil may be said to be suspended in a field of magnetism, and the moment a current runs through the coil it deflects to the right or left, according as it may be a positive or negative current, causing the siphon which is attached to the coil by the silk fibre to move in a corresponding direction.

To generate the electricity which carries the ink through the siphon, a second battery is employed for another electro magnet. Before the poles of this second electro magnet is fixed a vulcanite revolving cylinder, on which are fixed bars of soft iron and brass. It revolves when the battery is applied to the electro magnet by the attraction of the soft iron bars, and the make and break of the battery current is arranged by springs bearing on the shaft of the cylinder.

Whilst the cylinder revolves it draws the paper through the instrument, but this is done by other mechanical arrangements in connection with the cylinder.

Outside of the cylinder two brass plates are fixed. On these two plates the sparks, or rather the electricity induced in the brass bars, is collected. One of the plates is insulated, and from it a connection is made to the ink tank into which the siphon dips. This is the channel for the supply of the electricity to carry the ink through the siphon after it is generated by induction on the brass bars, and the two outside brass plates act the part of the two plates of a condenser.

This new system is now being tried between Porthcurno and Lisbon, on the Falmouth, Gibraltar, and Malta line, and bids fair to effect a very great improvement in the transmission of messages, and render far less liability to errors.

I have now given an account of every company quoted by "The Times," and one of the first thoughts that will occur to an investor is, whether the reserve fund of 1½ per cent. is sufficient to enable a company to entirely renew its cable or cables when worn out? This is a question that nobody can answer, for the length of time that a cable will last is at present unknown. The oldest in existence is the one laid between Dover and Calais, and there is perhaps no cable anywhere so liable to deterioration, owing to its being laid in shallow water, where it is exposed both to the action of the waves, and to the risk of damage from anchors; yet of this cable laid in 1851 there is more than one half still remaining. That between Malta and Sicily, laid in 1859, is as good as the day it was laid, though it is only sixty two miles in length, and much of it necessarily in shallow water. Our experience in the Atlantic is, that the portion of the cable laid in 1865 has never been even broken, and it must be allowed that each year the manufacture of cables has been improved.

In laying cables of the present heavy type it is most desirable to avoid shallow water, if feasible, because when they are in deep water it is impossible to see what can injure them except

the decay of time. With regard to lighter, and consequently weaker cables, it would perhaps not be safe to lay them at any great depth, as in case of accident during their submersion, or any fault appearing, as in the case of the Falmouth and French cables, it is very doubtful whether they would bear the strain of being picked up again.

Allowing that it is unknown how long a cable, if subject to no external injury, will take to decay, I have considered that an investment ought to give you 7 per cent. for your money, that is an extra 2 per cent. for the risk. If there were not this uncertainty, I do not see why one should expect more than 5 per cent. In the case of a company with only one cable, I think you should have 8 per cent. for your money, in a good year; that is, when there has been no stoppage of the traffic through a break down, as in a bad year you might only get 6 per cent., so that taking the average you might depend upon 7 per cent.

There has been a great deal written about every line being laid in duplicate, and I must confess myself a decided believer in a duplicate cable; but at the same time investors must remember that it is useless to lay two cables where there is not work enough for one. The telegraphic communication with America has been made nearly perfect through there being three cables, though there is scarcely more than work enough for one. The treble communication is, no doubt, a great boon to the public, but the shareholders can scarcely look at it in the same light.

I have carefully avoided expressing any anticipation as to the amount of traffic to be obtained by lines at present unopened, because I do not wish to draw a number of highly coloured pictures. I feel sure nobody can foretell with any degree of certainty what success will attend them in those parts of the world where cables are a novelty. As to the telegraph being more and more used every year, there can be little doubt. The laying of the Atlantic cable produced a wonderful effect in Liverpool, and a cotton broker from that town told me that it had quite put an end to heavy speculation in his business. The prices in America are so soon known here, that without continually using the cable, you would not be able to speculate even

ANGLO-MEDITERRANEAN TELEGRAPH COMPANY (LIMITED).

Directors.

LORD WILLIAM MONTAGU HAY, *Chairman.*
SIR JAMES ANDERSON, *Managing Director.*
JULIUS BEER, ESQ.
THOMAS BRASSEY, ESQ., M.P.
GEORGE ELLIOT, ESQ., M.P.
CYRUS W. FIELD, ESQ.
PHILIP RAWSON, ESQ.

Secretary—JOHN T. BURT, ESQ.

Office—66, Old Broad Street, E.C.

Capital.—430,000*l.* Consolidated Stock.
Meeting in June.
Dividends payable quarterly.
Dividends paid in 1870—

23rd Feb.,	4*s.*	per share.	
10th June,	13*s.*	,,	
30th Aug.,	4*s.*	,,	
24th Nov.,	4*s.*	,,	
24th Nov,,	1*s.* 7*d.*	,,	on new shares.

Amount of stock transferable.—From 5*l.* upwards.

Fluctuations in Price.

In 1868.	Highest,	1*l.* premium per share.	Lowest, ½ dis.	
In 1869.	,,	18¾ per share.	Lowest 10 per share.	
In 1870.	,,	22⅝ ,,	,, £113 stock.*	

* Equal to 11*l.* 6*s.* per share.

BRITISH AUSTRALIAN TELEGRAPH COMPANY (LIMITED).

Directors.

THE RIGHT HON. VISCOUNT MONCK, *Chairman.*
LORD WILLIAM MONTAGU HAY.
THE RIGHT HON. WM. NATHANIEL MASSEY.
JOHN PENDER, ESQ.
SIR JAMES ANDERSON.
WILLIAM MCARTHUR, ESQ., M.P.
CHARLES WM. EARLE, ESQ., *Managing Director.*

Secretary—GEORGE LYONS, ESQ.

Office—66, Old Broad Street, E.C.

Capital.—66,000 shares of 10*l.* each.

Interest.—The Telegraph Construction and Maintenance Company guarantees interest at the rate of 5 per cent. per annum upon the paid-up capital, payable half-yearly (on 1st January and 1st July) until the opening of the entire line.

Calls due.—5*l.* per share called up to 31st December, 1870. 3*l.* per share payable 2nd January, 1871. Date of remaining calls not known.

Number of shares transferable.—From one upwards.

BRITISH INDIAN EXTENSION TELEGRAPH COMPANY (LIMITED).

Directors.

Right Hon. William N. Massey, *Chairman.*
Francis A. Bevan, Esq.
Charles William Earle, Esq.
Colonel Thomas Geo. Glover, R.E., *Managing Director.*
Geo. Garden Nicol, Esq.
Philip Rawson, Esq.

Secretary—Thomas Fuller, Esq.

Office—66, Old Broad Street, E.C.

Capital.—46,000 shares of 10*l.* each, paid up.
Number of shares transferable.—From one upwards.

BRITISH INDIAN SUBMARINE TELEGRAPH COMPANY (LIMITED).

Directors.

JOHN PENDER, ESQ., *Chairman.*
SIR JAMES ANDERSON, *Managing Director.*
BARON EMILE D'ERLANGER.
COLONEL GLOVER, R.E.
LORD WILLIAM HAY.
THOS. DYSON HORNBY, ESQ.
RT. HON. W. N. MASSEY.
PHILIP RAWSON, ESQ.
SIR CHARLES WINGFIELD, M.P.

Secretary—JOHN T. BURT, ESQ.

Office—66, Old Broad Street, E.C.

Capital.—120,000 shares of 10*l.* each, paid up.
Meeting in December.
Dividend paid in 1870, 5*s.* per share.
Number of shares transferable.—From one upwards.

Fluctuations in Price.

In 1869.	Highest,	$4\frac{1}{8}$ prem.	Lowest,	$2\frac{3}{4}$ dis.
In 1870.	„	$15\frac{1}{4}$ per share.	„	$6\frac{1}{4}$ per share.

CHINA SUBMARINE TELEGRAPH COMPANY (LIMITED).

Directors.

JOHN PENDER, ESQ., *Chairman.*
LORD WM. M. HAY.
RT. HON. WM. N. MASSEY.
JAMES HENRY CRAWFORD, ESQ.
THOMAS FAIRBAIRN, ESQ.
COLONEL GLOVER, R.E., *Managing Director.*
R. D. SASSOON, ESQ.
BARON EMILE D'ERLANGER.

Secretary—THOMAS FULLER, ESQ.

Office—66, Old Broad Street, E.C.

Capital.—52,500 shares of 10*l.* each.

Interest.—The Telegraph Construction and Maintenance Company guarantees interest at the rate of 5 per cent. per annum upon the paid-up capital, payable half-yearly (on 1st January and 1st July), until the opening of the line.

Calls due.—1*l.* per share on 2nd January, 1871. 1*l.* per share on 1st February, 1871. 1*l.* per share on 1st March, 1871.

Number of shares transferable.—From one upwards.

CUBA SUBMARINE TELEGRAPH COMPANY (LIMITED).

Directors.

THOMAS HUGHES, ESQ., M.P., *Chairman.*
NEIL BANNATYNE, ESQ.
ALEX. F. LOW, ESQ.
ALEX. MACGREGOR, ESQ.
JOHN NENNINGER, ESQ.
HORATIO J. PERRY, ESQ.

Secretary—J. A. BRANDY, ESQ.
Office—50, Old Broad Street, E.C.

Capital.—16,000 shares of 10*l.* each, paid up. With power to raise 50,000*l.* by Bonds.

Number of shares transferable.—From one upwards.

FALMOUTH, GIBRALTAR, AND MALTA TELEGRAPH COMPANY (LIMITED).

Directors.

JOHN PENDER, ESQ., *Chairman.*
LORD WILLIAM MONTAGU HAY.
SIR JAMES ANDERSON.
GEORGE ELLIOT, ESQ., M.P.
BARON EMILE D'ERLANGER.
RIGHT HON. WILLIAM N. MASSEY.
LORD ALFRED PAGET.

Secretary—JOHN T. BURT, ESQ.
Office—66, Old Broad Street, E.C.

Capital.—66,000 shares of 10*l.* each, paid up.
Meeting in December.
Dividend in 1870, 4*s.* per share.
Number of shares transferable.—From one upwards.

Fluctuations in Price.

In 1869.	Highest,	$2\frac{7}{8}$ prem.	Lowest,	$\frac{1}{2}$ dis.
In 1870.	„	$4\frac{3}{8}$ „	„	2 „

GREAT NORTHERN TELEGRAPH COMPANY OF COPENHAGEN.

(Incorporated under Danish law with limited liability.)

Directors.

C. A. Broberg, Esq.
M. Levy, Esq.
Count W. C. E. Sponneck.
O. B. Suhr, Esq.
C. F. Tietgen, Esq.

Representative in England—H. G. Erichsen, Esq.

Office—7, Great Winchester Street Buildings, E.C.

Capital.—40,000 shares of 10*l.* each, paid up.

Meeting in April.

Dividends payable 1st January and 1st July; interim dividends of 2½ per cent., and the balance of profits, in April.

Dividends paid in 1870—

In April, 6*s.* 6*d.* per share, nett.
1st July, 2½ per cent.

Shares.—"To bearer." In scrip for one, five, ten, fifty, and one hundred shares each.

Fluctuations in Price.

In 1869.	Highest,	11¾.	Lowest,	10.
In 1870.	„	12.	„	9½.

GREAT NORTHERN TELEGRAPH; CHINA AND JAPAN EXTENSION COMPANY OF COPENHAGEN.

(Incorporated under Danish law with limited liability.)

Directors.

C. A. Broberg, Esq.
L. P. Holmblad, Esq.
M. Levy, Esq.
I. Fr. Sick, Esq.
O. B. Suhr, Esq.
C. F. Tietgen, Esq.

Representative in England—H. G. Erichsen, Esq.

Office—7, Great Winchester Street Buildings, E.C.

Capital.—60,000 shares of 10*l.* each, paid up.

Shares.—"To bearer." In scrip for one, five, ten, fifty, and one hundred shares each.

INDO-EUROPEAN TELEGRAPH COMPANY (LIMITED).

Official Directors.

General Von Chauvin, Director-General of Telegraphs of the North German Confederation.

General Von Luders, Director-General of Imperial Telegraphs in Russia.

Directors.

The Hon. Robert Grimston, *Chairman.*
Wm. H. Barlow, Esq., F.R.S.
I. H. Gossler, Esq.
Colonel James Holland.
H. H. Meier, Esq.
L. Oesterreich, Esq.
W. E. Quentell, Esq.
Charles B. Skinner, Esq.
Major-General G. B. Tremenheere.
J. Herbert Tritton, Esq.
H. Weaver, Esq.

Secretary—W. Andrews, Esq.

Office—16, Telegraph Street, E.C.

Capital.—18,000 shares of 25*l.* each, of which 1,000 shares are unissued.

Meeting in February.

Number of shares transferable.—From one upwards.

Fluctuations in Price.

In 1870. Highest, 25. Lowest, 12.

MEDITERRANEAN EXTENSION TELEGRAPH COMPANY (LIMITED).

Directors.

HENRY MOOR, ESQ., *Chairman.*
SIR JAMES CARMICHAEL, BART., *Deputy Chairman.*
G. B. CARR, ESQ.
SAMUEL GURNEY, ESQ.
CAPTAIN A. T. HAMILTON.

Secretary—EDWARD TOMBS, ESQ.

Office—158, Gresham House, E.C.

Capital.—12,000 ordinary shares of 10*l.* each, paid up, and 3,200 eight per cent. preference shares of 10*l.* each, paid up.

Meetings.—February and August.

Dividends payable.—March and September.

Dividend paid in 1870, on ordinary shares.—In September, 1½ per cent. for the half-year.

Number of shares transferable.—From one upwards.

Fluctuations in Price.

In 1868.	Highest,	4¾.	Lowest,	2.
In 1869.	„	8.	„	2½.
In 1870.	„	9¾.	„	4¼.

MARSEILLES, ALGIERS, AND MALTA TELEGRAPH COMPANY (LIMITED).

Directors.

His Excellency M. Drouyn de Lhuys, *Chairman.*
Lord Wm. M. Hay.
Baron Emile D'Erlanger.
Sir James Anderson.

Secretary—John T. Burt, Esq.

Office—66, Old Broad Street, E.C.

Capital.—20,000 shares of 10*l.* each, paid up.
Number of shares transferable.—From one upwards.

PANAMA AND SOUTH PACIFIC TELEGRAPH COMPANY (LIMITED).

Directors.

Thomas Hughes, Esq., M.P., *Chairman.*
Neil Bannatyne, Esq.
Major-General Wm. F. Smith.
Fred. Pezet, Esq.
Don Carlos Paz Soldan.
Alex. Ruden, Esq.
Alex. F. Low, Esq.

Secretary—W. Walsh, Esq.

Office—50, Old Broad Street, E.C.

Capital.—32,000 shares of 10*l.* each, with power to raise 50,000*l.* by Bonds.
Number of shares transferable.—From one upwards.

REUTER'S TELEGRAM COMPANY (LIMITED).

Directors.

COLONEL JAMES HOLLAND, *Chairman.*
REAR-ADMIRAL SIR JOHN C. D. HAY, BART., M.P.
JAMES SYDNEY STOPFORD, ESQ.
JULIUS REUTER, ESQ., *Managing Director.*

Secretary—F. J. GRIFFITHS, ESQ.

Office—5, Lothbury, E.C.

Capital.—10,000 shares of 8*l.* each, of which 1,000 are unissued, the remainder being fully paid.
Meeting in April.
Dividends payable.—April and October.
Dividends paid in 1870—

April, 7½ per cent.
October, 2½ „

Number of shares transferable.—From one upwards.

Fluctuations in Price.

In 1869.	Highest,	82 (old shares).	Lowest,	49 (old shares).
In 1870.	„	13 (new shares).	„	7 (new shares).

SOCIÉTÉ DU CABLE TRANSATLANTIQUE FRANÇAIS (LIMITED).

Directors in London.

THE RT. HON. VISCOUNT MONCK, *Chairman.*
LORD WM. M. HAY.
EDWARD I. HALSEY, ESQ.
JULIUS REUTER, ESQ.

Directors in Paris.

CONTRE AMIRAL LACAPELLE, *President.*
LE MARQUIS E. DE BEAUMONT.
M. CHARLES CRAPELET.
LE BARON EMILE D'ERLANGER.
M. L. CURCHOD, *Directeur-Generale in Paris.*

Manager in London—CAPT. R. C. MAYNE, R.N., C.B.

Secretary in London—E. TRAVERS CUMMINS, ESQ.

Office in London—26, Old Broad Street, E.C.

Capital.—58,000 ordinary shares of 20*l.* each. 2,000 omnium shares of 20*l.* each, paid up.

Meeting in February.

Dividends payable quarterly.

Dividends paid in 1870—

19th Feb.	7*s.*	per share,	less tax.
6th Aug.	14*s.*	„	nett.
30th Sept.	8*s.*	„	„

Fluctuations in Price.

In 1868.	Highest,	1	prem.	Lowest,	6	dis.
In 1869.	„	$3\frac{1}{2}$	„	„	$5\frac{1}{4}$	„
In 1870.	„	$19\frac{1}{8}$	per share.	„	$13\frac{1}{4}$	per share.

SUBMARINE TELEGRAPH COMPANY.

Directors.

Sir James Carmichael, Bart., *Chairman.*
Samuel Gurney, Esq.
Captain I. Grant, *late* R.A.
Henry Moor, Esq.
The Hon. Ashley Ponsonby.
C. Saunderson, Esq.
Arthur Otway, Esq., M.P.

Secretary—S. M. Clare, Esq.

Office—58, Threadneedle Street, E.C.

Capital.—338,225*l.* Consolidated Stock, with power to increase to 400,000*l.*

Meetings.—February and August.

Dividends payable.—March and September.

Dividends paid in 1870—

March, 7 per cent. per annum.
Sept., 13 „ „

Amount of stock transferable. From 5*l.* upwards.

Fluctuations in Price.

In 1868.	Highest,	102½.	Lowest,	65.
In 1869.	„	252.	„	92.
In 1870.	„	263.	„	220.

WEST INDIA AND PANAMA TELEGRAPH COMPANY (LIMITED).

Directors.

REAR-ADMIRAL SIR JOHN C. HAY, BART., M.P., *Chairman.*
NEIL BANNATYNE, ESQ.
GEO. H. CHAMBERS, ESQ.
QUINTIN HOGG, ESQ.
THOMAS HUGHES, ESQ., M.P.
WM. LANGTON, ESQ.
ALEX. MACGREGOR, ESQ.
MAJOR-GENERAL SMITH.
JOHN A. TINNE, ESQ.

Secretary—WILLIAM WALSH, ESQ.

Office—50, Old Broad Street, E.C.

Capital.—65,000 shares of 10*l.* each, paid up; with power to raise 50,000*l.* by Bonds, which has been exercised to the extent of 27,500*l.*

Number of shares transferable.—From one upwards.

LONDON: PRINTED BY WILLIAM CLOWES AND SONS,
STAMFORD STREET AND CHARING CROSS.